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EXAMINER

GANTT, A

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 03/06/00 have been fully considered but they are not persuasive. Applicant primarily argues that:

- a. Applicant's invention can be operated totally by one hand while the Rydbeck reference requires two, especially in shifting the antenna position.
- b. One having the teachings of Rydbeck would not be motivated to incorporate the Nagrai reference.

Regarding (a), judging by the figure provided in the Rydbeck reference, it would seem to be feasible to operate the telephone and its antenna with one hand. It would ultimately depend on the dexterity of the user.

Regarding (b), since Rydbeck and the applicant's invention have the same main objective, e.g., moving the antenna away from the user's head to improve reception of incoming signals, and in each invention there is the same starting point A and ending point B, the only major difference is the route for getting from point A to point B. Nagrai, while not being of the same general type as the other two, is capable of single handed operation and the antenna is capable of being aimed away from the user's head during use. Therefore, these forementioned areas with commonality to Rydbeck makes Nagrai applicable for being combinable with Rydbeck. Thus, it is conceivable that one seeing the antenna of Nagrai being movable on a pivot about an axis and movable along a

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plane and observing Rydbeck telephone could see improving Rydbeck to utilize movement through a plane to get from point A to point B. Further, the more common type of movement to get from point A to point B would be a movement tracing out a plane as opposed to three dimensional volume created by the Rydbeck movement.

Therefore, the rejection stands utilizing Rydbeck and Nagrai as the chief references.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rydbeck, in view of Nagai.

Regarding claims 1, 2, 4, 5, 7-12, 17, and 18, Rydbeck discloses a canted antenna for a cellular radiotelephone that is movable between a first position and a second position. In the first position, the antenna is substantially parallel to the face of the radiotelephone. In the second position, the antenna is canted away from the face of the radiotelephone thus increasing the distance from the user's head and the antenna during use ( col.1, lines 56-67). The angular orientation caused by the second position defines an arrangement of the antenna and the

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radiotelephone such that the axis and the imaginary plane defined by the extended front face of the radiotelephone form an acute angle. Thus, the antenna moves through this acute angle from the first position to the second position when observed along the plane joining the first and second position (col. 2, lines 10-27). The first position is also thought of as a storage position and reduces the profile of the radiotelephone (col. 3, lines 4-10). Rydbeck makes use of a boss having an angled surface connecting one end of the antenna to permit the movement from the first position to the second position. Rydbeck does not utilize a pivot to permit single plane movement between the two positions.

Nagai teaches the use of a hinge to provide pivotable movement about a hinge for its rotating antenna type portable radiotelephone apparatus. The antenna moves through a single plane with the purpose of reducing the adverse affects of interference from the human body. The antenna may be rotatably positioned on one end of the hinge section or both ends of the hinged section (col. 1, lines 48-61). There are abuts and groove fittings involved with the hinge section that permit the antenna to be secured at both ends of hinge section (Figures 2 and 3c [refs 32 ,33, and 34a-c] and col. 2, line 49 to col. 3, line 39 and col 4, lines 45-46).

Rydbeck and Nagai are combinable because they share a common endeavor, namely, radiotelephones that incorporate antennas that move away from the user's head. At the time of the applicant's invention, it would have been obvious to modify Rydbeck to use hinging mechanism as done by Nagai to permit the fastest and most efficient means of moving the antenna from the first position to the second position.

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Regarding claims 3, 6, 19, and 20, depending on the hinging configuration of Rydbeck, as well as the groove configuration, the antenna will tend to be moved towards one or both positions (col. 2, line 49 to col. 3, line 39).

Regarding claim 13, the rotating antenna provided by Nagai produces a plan of rotation that is perpendicular to the front surface of the radiotelephone (Figure 4b).

Regarding claim 14, helical antennas are known to be configured inside housing as the one illustrated in Rydbeck and they are known to have the flexibility to make this canted position possible. Therefore, it would have been obvious for Rydbeck to utilize helical antenna structures in canted antenna radio telephones because of their physical flexibility and strong availability in the industry.

Regarding claim 15, Rydbeck's preferred embodiment provides for the phone's speaker to be positioned on the phone's front face and mounted adjacent to the top edge [the edge where the antenna is located] (col. 3, lines 35-46).

Regarding claim 16, Rydbeck's preferred embodiment, as is typical with radiotelephones, places the microphone at the bottom of the front face, away from the antenna at the top (Figure 2 and col. 3, lines 35-46).

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*Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be directed to Alan Gantt at telephone number (703) 305-0077. The Examiner can normally be reached between 8:30 a.m. and 5:00 p.m. EDT. The group FAX number is (703) 308-6306.

Any inquiry of a general nature or relating to the status of the application should be directed to the group receptionist at telephone number (703) 305-3900.

*Alan Gantt*

Alan Gantt

May 16, 2000

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~~PRIMARY EXAMINER~~

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*TC 2/00*